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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,314	06/08/2006	Paul H.F. Merswolke	58342.0013	5263
24629 7590 08/03/2010 DARYL W SCHNURR MILLER THOMSON LLP ACCELERATOR BUILDING 295 HAGEY BLVD., SUITE 300 WATERLOO, ON N2L 6R5 CANADA				
EXAMINER				
WHITE, DWAYNE J				
ART UNIT		PAPER NUMBER		
3745				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/596,314

Applicant(s)

MERSWOLKE ET AL.

Examiner

DWAYNE J. WHITE

Art Unit

3745

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-20 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 09 December 2009 have been fully considered. Claims 1-20 are pending. Applicant has indicated that there is no indication in the description or drawings of Collard that the generators 8 and pinions 6 are tilted away from or tilted into contact with the crown wheel 5 while the crown wheel 5 is rotating. Applicant argues that from the design shown in Figure 2, the pinions or peripheral edges of the teeth of the crown wheel 5 would break or become damaged if an attempt was made to move a pinion and generator out of contact position from the contact position or vice versa during rotation of the crown wheel 5. The Examiner respectfully disagrees with Applicant's conclusion. The Examiner first points out that speculation as to whether the teeth of the crown would be broken or damaged if the generators are actively moved into and out of engagement with the crown during operation is insufficient evidence to prove that the invention of Collard is capable of such a operation. Applicant has provided no evidence to support this assertion. It is further noted that Collard states that teeth aren't the only avenue to drive the generators. Page 5, lines 9-16, state, "Furthermore, as illustrated in figure 3, the crown wheel 5 may have teeth on both sides, for driving a larger number of generators, or even surfaces that are grooved or treated in some other way to drive by friction rollers that are integral to the generator shafts. It can also be noted that the generators 8 can be fitted so that they may be tilted with respect to their mounts 11 that are fixed to platform 9 to allow their pinions 6 or rollers to be disengaged from toothed crown 5 so that they do not operate as shown by the dashed lines of figure 2." This lays the foundation that any type of roller could be used to, i.e. tires or the like (friction rollers) where the teeth of the crown would

not be an issue. Furthermore, Collard states that with an appropriate means of control some or all of the generators can be used as needed. No where does Collard state that the controlling of the generators' contact cannot be done during operation.

Applicant goes on to argue that Schmidt makes no mention of controlling the number of wheels in contact with the ring. Upon further review the Examiner recognizes that Schmidt only teaches energizing individual different generators depending on the power needs rather than controlling the number of wheels in contact with the ring (Column 4, lines 61-67). This does however lend support to a controller controlling the operation of the generators generally envisioned by Collard. Applicant also argues that there is no statement in Schmidt that the brakes are connected to a controller. Column 4, lines 28-32, state that the take off wheels are mounted with brakes so that the wheel can be stopped if it rotates at an excessive speed. Considering that Schmidt discloses a controller that is controlling the speed, yaw and the furling and unfurling of the blades, it is clear that brakes would also be included in the controller's abilities to control the speed of the wind turbine.

With respect to Applicant's arguments regarding Gribnau, expense and likelihood of structural failure does not negate structural equivalents. Furthermore, Gribnau is used to teach that the ring can be placed in positions other than at the tips of the blades, which Gribnau supports by showing embodiments with the ring in different positions. The Examiner respectfully disagrees with Applicant's assertion and has thus maintained the rejection.

With respect to claim 12, Applicant indicates that the plate provides more protection from adverse weather conditions. The Examiner notes, however, that there is no indication in the specification as filed that the plate provides more protection or how the plate provides this

protection. The Examiner has maintained that providing a plate is still matter of engineering design choice.

Upon further consideration, the Examiner has withdrawn the rejection of claim 14 as none of the known prior art teaches the method of controlling the speed by using the controller to adjust a force of the rotators that are in contact with the ring.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13, 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collard (FR 2,394,689 A1) in view of Schmidt (4,729,716) in further view of Gribnau (5,315,159). Collard discloses a turbine powered by wind comprising a rotor 1 on a shaft 2, said rotor having blades 4 extending outward therefrom, said blades being shaped to rotate said shaft when said wind is sufficiently strong, said shaft being rotatably supported on a support that can move said blades in a yaw movement into and out of said wind as said wind changes direction (Page 5, lines 1-5), said turbine having a pitch adjustment mechanism to change a pitch of said blades (page 4, lines 17-19), said shaft having a gear ring 5 concentrically mounted thereon, a plurality of gear rotators 6 mounted to removably contact said ring, said rotators being connected to generators 8, said rotators being constructed to rotate with said ring when said rotators are in contact therewith, thereby driving said energy producing equipment when said wind rotates said

blades. The Examiner notes that since the blades are mounted on the hub (note labeled but shown in Figure 1) and the hub is connected to the shaft, it is the position of the Examiner that the hub is between the shaft and the blades. Further it can be seen from figure 1 that posts are extending from the hub on which the blades are mounted and a plurality of spokes extending from the ring to connect the ring to the blades and thus support the ring. Collard also discloses the fiction rollers (tires or the like) may be used on the outer surface (the surface parallel with the shaft) of the ring (Page 5, lines 8-12). The Examiner notes that since Collard discloses gears and it is well known that gears are made of metal, it is the position of the Examiner that Collard meets the limitation of the ring and rotators being made of metal. Collard further discloses a controller (page 5, lines 16-17) that controls the number of generators driven by the turbine. Collard does not disclose a controller to control the braking of the turbine, a plate having a ring, the ring being separate from the blades and having a smaller diameter.

Schmidt teaches a wind turbine being controlled by a controller 144 that monitors the wind using sensors 146 to control the yaw of the turbine, position of the blades and energizing different generators depending on the power needs (Column 4, line 53-Column 5, line 2 and Column 6, lines 25-53). Brakes (Column 4, line 30) are provided to stop or slow the turbine. Since both Collard and Schmidt disclose wind turbine of analogous type and it is already well known in the wind turbine art to provide controllers to automate the operation of the wind turbine, it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the controller of Collard, with the teachings of Schmidt, by providing sensors and brakes to the controller for the purpose of automating the wind turbine's functions.

Gribnau teaches a wind turbine having a ring 6 attached either to the blades or to the shaft separate from the blades to generate power wherein the ring has a smaller diameter than the blades. The Examiner notes that while Gribnau does not disclose rotators similar to Collard the generator rotor 6 (i.e. the ring) and the stator held in the U-shaped holder 7 are equivalents to the rotator and generator. Therefore, it would have been obvious at the time the invention was made to one of ordinary skill in the art to further modify the ring of Collard, with the teaches of Gribnau, by positioning the ring on the shaft separate from the blades and having the ring being smaller in diameter than the circumference of the blades as an engineering expedient.

In regards to claim 12, since Applicant does not disclose that having a plate instead of a ring solves any stated problem or is for any particular purpose other than to interact with the rotators, it would have been an obvious matter at the time the invention was made to one of ordinary skill in the art to further modify the ring of Collard, by replacing the ring with a plate as an engineering design choice.

In regards the claims 13-15, since all of the structure of Collard as modified would perform all of the claims method steps set forth and no step or structure is claimed what would not be met by the modified structure of Collard, it is the position of the Examiner that Collard reads on the method.

Claims 1/5, 1/2/3/5 and 1/4/5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collard (FR 2,394,689 A1) in view of Schmidt (4,729,716) in further view of Gribnau (5,315,159). Collard as modified by Schmidt and Gribnau discloses all of the claimed subject matter as set forth above except for the turbine only having three blades.

Since Applicant does not disclose that having three blades solves any stated problem, and it is clear that Collard as modified would function equally as well 3 blades, it would be an obvious matter of engineering design choice to have a turbine with 3 blades.

CONCLUSION

Allowable Subject Matter

Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DWAYNE J. WHITE whose telephone number is (571)272-4825. The examiner can normally be reached on 7:00 am to 3:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dwayne J White/
Examiner, Art Unit 3745

DJW

/Edward K. Look/
Supervisory Patent Examiner, Art Unit 3745